

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listing of claims, in the Application.

Listing of claims:

1. (Previously presented) An algorithm to improve efficiency of editing source code, comprising

recognizing that a source code has been edited;

identifying a program construct having the edited source code;

constructing a construct list of at least one other construct having derived and/or related code to the program construct;

comparing the at least one other construct with the program construct having the edited source code; and

if, in response to comparing the at least one other construct with the program construct, a commonality between the at least one other construct and the program construct is found to be equal to or beyond a threshold of similarity, then notifying a user responsible for the at least one other construct that the source code of the program construct has been edited.

2. (Previously presented) The efficiency algorithm of claim 1, wherein identifying the program construct further comprises parsing tokens of the edited source code.

CA920020065US1

3. (Previously presented) The efficiency algorithm of claim 1, wherein constructing a construct list further comprises determining that the at least one other construct is of at least a threshold size for placement in the construct list.
4. (Previously presented) The efficiency algorithm of claim 3, further comprising parsing a sequence of tokens from each of a plurality of constructs of the at least threshold size.
5. (Previously presented) The efficiency algorithm of claim 4, wherein comparing the at least one other construct with the program construct further comprises comparing the parsed tokens of the edited source code with parsed tokens of each of a plurality of constructs in the construct list.
6. (Previously presented) The efficiency algorithm of claim 5, wherein comparing the parsed tokens further comprises weighting the compared tokens to establish a degree of similarity.
7. (Previously presented) The efficiency algorithm of claim 6, further comprising summing the weights of the compared tokens to determine if the sum is equal to or beyond the threshold of similarity.
8. (Original) The efficiency algorithm of claim 1, further comprising storing the construct list.
9. (Original) The efficiency algorithm of claim 1, wherein the efficiency algorithm is a machine-implemented process in an integrated development environment.

10. (Previously presented) An efficiency algorithm to improve efficiency of editing source code, comprising

recognizing that a source code has been edited;

identifying a program construct having the edited source code and parsing tokens of the edited source code;

constructing a construct list of at least one other construct of at least a minimal threshold size having related code by parsing a sequence of tokens from each of a plurality of constructs of the at least minimal threshold size;

comparing the parsed tokens of the edited source code with the parsed tokens of each of the plurality of constructs in the construct list, and weighting the compared tokens;

summing the weights of the compared tokens to determine if the sum is equal to or beyond a threshold of similarity, and if so, then determining if a user responsible for the at least one other construct is to be notified; and

storing the construct list.

11. (Previously presented) A method of determining if two or more constructs in a repository of source code in an integrated development environment are related to each other, said method comprising the steps of:

identifying a first construct;

parsing N tokens of the first construct, N being a positive integer;

CA920020065US1

- identifying a plurality of other constructs in the repository;
- parsing M tokens of each one of the other constructs, where M = N;
- comparing the M tokens of each one of the other constructs with the N tokens of the first construct;
- determining a weight for each one of the N and M tokens based on name, type, and/or representation;
- summing the weights of the N and M tokens;
- determining whether the sum of the weights of the M tokens meets or exceeds a threshold of similarity, the threshold of similarity being based on a percentage of the sum of the weights of the M tokens to the sum of the weights of the N tokens; and
- identifying each construct whose sum of the weights of the M tokens meets or exceeds the threshold of similarity as being related to the first construct.

12. (Previously presented) The method of claim 11, wherein the step of identifying the first construct further comprises the step of identifying whether a source code within which resides the first construct has been edited.

13. (Previously presented) The method of claim 11, further comprising storing a pointer to each construct identified as being related to the first construct in a construct list of related constructs.

CA920020065US1

14. (Previously presented) The method of claim 13, further comprising the step of identifying users responsible for each of the constructs in the construct list.
15. (Previously presented) The method of claim 14, further comprising the step of offering notification to each user responsible for each one of the constructs in the construct list.
16. (Previously presented) An integrated development environment, comprising:
 - a repository of source code into which programs in the integrated development environment are stored;
 - a constructor to determine, when executed by a processor, whether a construct in an edited program has been edited;
 - a construct list within the repository into which all constructs that are derived and/or related to the edited construct are listed;
 - a parser to parse the edited construct and the derived and/or related constructs, when executed by a processor;
 - a matchmaker to determine, when executed by a processor, all the constructs that are derived and/or related to the edited construct and to enter all constructs determined to be derived and/or related to the edited construct in the construct list; and

an announcer to notify, when executed by a processor, any of a plurality of programmers accessing the integrated development environment that the edited construct has been edited and the constructs that are derived and/or related to the edited construct.

17. (Previously presented) The integrated development environment of claim 16, further comprising listing within the construct list all source code derived from the edited construct and/or any of the other constructs in the construct lists derived and/or related to the edited construct.

18-19. Canceled.

20. (Previously presented) An article of manufacture, comprising a data storage medium tangibly embodying a program of machine readable instructions executable by an electronic processing apparatus to perform method steps for operating an electronic processing apparatus, said method steps comprising the steps of:

determining that a source code has been edited in an environment of computer program development;

determining if the edited source code is within a construct of a size of a particular range;

parsing the construct having the edited source code if the edited source is within a construct of the size of the particular range;

finding and parsing other constructs in the environment having a size within the particular range;

creating a construct list of other constructs in the environment having a size within the particular range;

comparing tokens of the construct having the edited source code with tokens of the other constructs in the construct list; and

determining that the construct having the edited source code is related to any one of the constructs in the construct list if the tokens of any one of the constructs in the construct list equal the tokens of the construct having the edited source code.

21. (Original) The article of manufacture of claim 20, further comprising weighting the compared tokens based on value, type, and/or representation.

22. (Previously presented) The article of manufacture of claim 20 wherein said method steps further comprises the step of notifying a user responsible for of any one of the constructs in the construct list that is determined to be related to the construct having the edited source code that the source code of the construct has been edited.

23. (Original) The article of manufacture of claim 20, further comprising at least one construct list of related and/or derived constructs within the integrated development environment.